caprolactone = 95.5% by weight, Mn = 23 100. The poly(1-hexene) block is isotactic (mm > 95%).

Example 10:

The procedure of example 9 is repeated, replacing the 1-hexene by 3 ml of 1-pentene and the caprolactone by 3 ml of MMA. 0.56 g of polymer is recovered, corresponding to an activity of 5.6 g of polymer/g of catalyst, said polymer possessing the following characteristics: proportion of 1-pentene = 13.5% by weight, proportion of caprolactone = 86.5% by weight, Mn = 54 700. The poly(1-pentene) block is isotactic (mm > 95%).

Example 11:

The procedure of example 9 is repeated, replacing catalyst B by 100 mg of catalyst C. 0.52 g of polymer is collected, corresponding to an activity of 5.2 g of polymer/g of catalyst, said polymer possessing the following characteristics: proportion of 1-hexene = 50% by weight, proportion of caprolactone = 50% by weight, Mn = 6 800. The poly(1-hexene) block is isotactic (mm > 95%).

Example 12:

The procedure of example 9 is repeated, replacing catalyst B by 100 mg of catalyst C and the caprolactone by 2 ml of MMA. 0.25 g of polymer is collected, corresponding to an activity of 2.5 g of polymer/g of catalyst, said polymer possessing the following characteristics: proportion of 1-hexene = 52% by weight, proportion of MMA = 48% by weight, Mn = 12 000. The poly(1-hexene) block is isotactic (mm > 95%).

Example 13:

The procedure of example 10 is repeated, replacing catalyst B by 100 mg of catalyst C. 0.41 g of polymer is collected, corresponding to an activity of 4.1 g of polymer/g of catalyst, said polymer possessing the following characteristics: proportion of 1-pentene = 91% by weight, proportion of MMA = 9% by weight,

Mn = 6 200. The poly(1-pentene) block is isotactic (mm > 95%).

The invention is not limited to the embodiments described, but is capable of numerous variations which are readily accessible to the skilled worker.